

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-32. (Canceled)

33. (New) A method of manufacturing a transistor, comprising:

forming a semiconductor film on a substrate;

forming an intrinsic portion and a first impurity portion in the semiconductor film by applying a first impurity atom to the semiconductor film, the intrinsic portion not including the first impurity atom, the first impurity portion including the first impurity atom;

forming an insulator film over the semiconductor film;

forming a gate electrode over the insulator film, the gate electrode overlapping with at least a part of the intrinsic portion and at least a part of the first impurity portion; and

forming a second impurity portion in the semiconductor film by applying a second impurity atom to the semiconductor film using the gate electrode as a mask, the second impurity portion being separated into two parts by at least the intrinsic portion.

34. (New) A method of manufacturing a transistor, comprising:

forming a semiconductor film on a substrate;

forming an intrinsic portion and a first impurity portion in the semiconductor film by applying a first impurity atom to the semiconductor film, the intrinsic portion not including the first impurity atom, the first impurity portion including the first impurity atom, the first impurity portion being separated into at least two parts by the intrinsic portion;

forming an insulator film over the semiconductor film;

forming a gate electrode over the insulator film, the gate electrode overlapping with at least a part of the intrinsic portion and at least a part of the first impurity portion; and

forming a second impurity portion in the semiconductor film by applying a second impurity atom to the semiconductor film using the gate electrode as a mask.

35. (New) A method of manufacturing a transistor, comprising:
forming a semiconductor film on a substrate;
forming an intrinsic portion and a first impurity portion in the semiconductor film by applying a first impurity atom to the semiconductor film, the intrinsic portion not including the first impurity atom, the first impurity portion including the first impurity atom;
forming an insulator film over the semiconductor film;
forming a gate electrode over the insulator film; and
forming a second impurity portion in the semiconductor film by applying a second impurity atom to the semiconductor film.

36. (New) The method of manufacturing a transistor according to claim 33,
the first impurity portion being separated into at least two parts by the intrinsic portion by applying the first impurity atom to the semiconductor film.

37. (New) The method of manufacturing a transistor according to claim 33,
the intrinsic portion being separated into at least two parts by the first impurity portion by applying the first impurity atom to the semiconductor film.

38. (New) The method of manufacturing a transistor according to claim 33,
the intrinsic portion being separated into at least two parts by the first impurity portion by applying the first impurity atom to the semiconductor film, the two parts of the intrinsic portion being arranged in a channel width direction.

39. (New) The method of manufacturing a transistor according to claim 33,
the semiconductor film having a channel region under the gate electrode, the channel region consisted of the intrinsic portion and the first impurity portion, the intrinsic portion being separated into a plurality of intrinsic parts and the first impurity

portion being separated into a plurality of first intrinsic parts, the plurality of intrinsic parts and the plurality of first intrinsic parts being alternated.

40. (New) The method of manufacturing a transistor according to claim 33, the semiconductor film having a channel region under the gate electrode, the channel region consisted of the intrinsic portion and the first impurity portion, the intrinsic portion being separated into a plurality of intrinsic parts and the first impurity portion being separated into a plurality of first intrinsic parts, the plurality of intrinsic parts and the plurality of first intrinsic parts being arranged in a channel width direction.

41. (New) The method of manufacturing a transistor according to claim 33, further comprising:

applying an energy to the semiconductor film to crystallize it before the forming of the intrinsic portion and the first impurity portion.

42. (New) The method of manufacturing a transistor according to claim 33, a dosage of the first impurity portion being larger than a dosage of the second impurity portion.

43. (New) A method of manufacturing an active-matrix substrate using the method of manufacturing a transistor according to claim 33.

44. (New) A method of manufacturing an electro luminescent device using the method of manufacturing a transistor according to claim 33.

45. (New) A method of manufacturing a display device using the method of manufacturing a transistor according to claim 33.

46. (New) A method of manufacturing an electronic apparatus using the method of manufacturing a transistor according to claim 33.